higher medical costs in six European settings. **METHODS:** The Archimedes model was used to simulate cohorts of individuals ages 40 to 75 with no prior history of diabetes, cardiovascular disease, or chronic kidney disease, in Denmark, France, Germany, Italy, Poland and the UK. Individuals were simulated for 10 years and the incidences of diabetes and MACE were tracked, along with mean total medical costs per person. A risk score was computed for each simulated person, with baseline data on age, gender, BMI, waist, smoking, family histories of diabetes and cardiovascular disease, and antihypertensive usage. For each country, the subpopulations of individuals with above median risk score (TOP50), and individuals in the top risk score quartile (TOP25) were compared to the full cohorts. **RESULTS:** Diabetes and MACE incidences were higher in the TOP50 and TOP25 subgroups, as were total medical costs. In each country, the mean 10-year discounted medical costs for the full cohorts vs. the TOP50 subgroups were: Denmark €8,482 (95%CI 8,027 - 8,937) vs. €11,292 (10,614 - 11,969); France €6,264 (5,917 - 6,611) vs. €8,492 (7,953 - 9,031); Germany €8,717 (8,218 - 9,217) vs. €11,974 (11,204 - 12,743); Italy €7,688 (7,273 - 8,104) vs. €10,279 (9,643 - 10,914); Poland €1,798 (1,707 - 1,888) vs. €2,418 (2,274 - 2,561); UK €4,100 (3,885 - 4,314) vs. €5,580 (5,238 - 5,921). Medical costs were even higher in the TOP25 subgroup. **CONCLUSIONS:** This risk score could be an effective tool for identifying individuals likely to incur higher health care costs due to diabetes and MACE. Targeting individuals with such scores could make screening programs more efficient, provided validation in real-world populations.

PCV23

BETA BLOCKERS FOR TREATMENT OF CHRONIC HEART FAILURE IN SPAIN: REVIEW OF THE ECONOMIC EVIDENCE AND EFFICIENCY ANALYSIS

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OBJECTIVES: Chronic heart failure (CHF) is a major health issue because of its growing prevalence, morbimortality and associated resource consumption. Beta blockers have been shown to be effective and cost-effective therapies for CHF. The aim is determining what beta blocker constitutes the most efficient therapy for CHF patients in Spain. **METHODS:** Systematic review of primary (clinical trials) and secondary (meta-analyses, clinical practice guidelines and economic assessments) evidence on beta blockers for CHF issued before May 2012. Once that efficacy of each beta blocker was established, local drug databases were accessed in order to estimate the updated annual cost of each therapy and daily dose in Spain. **RESULTS:** Given their similar efficacy [death RR: bisoprolol: 0.66, p<0.0001; metoprolol: 0.66, p<0.0001; carvedilol: 0.65, p<0.005, nebivolol: 0.88, p=0.21] and safety profiles, international clinical guidelines on Cardiology recommend bisoprolol, metoprolol succinate, carvedilol and nebivolol as first choice therapies for CHF (class I and level of evidence A). Annual treatment costs per patient reached 38.70€; 162.53-311.69€; 170.70€ and 188.14€ for bisoprolol, carvedilol, metoprolol succinate and nebivolol, respectively. When hospitalization costs are considered, cost per avoided death was 9.512€, 14.989€, 16.767€ and 50.795€ for bisoprolol, carvedilol, metoprolol succinate and nebivolol, respectively. Results of the cost-benefit analysis indicated that only bisoprolol showed a net benefit, with an estimated annual savings of 116.293€. Budget impact analysis yields that bisoprolol implies a saving of 76-88% of carvedilol cost of therapy per year and patient, 77% when compared to metoprolol succinate and 79% versus nebivolol. **CONCLUSIONS:** Despite the underuse of betablockers for CHF treatment, they have demonstrated to be effective and cost-effective. Among them, bisoprolol gathers pharmacologic, legal and pharmacoeconomic characteristics that confirm their being the most efficient beta blocker (both in terms of cost-benefit and cost-effectiveness) for CHF patients in Spain.

PCV24

ECONOMIC ANALYSIS OF BEMIPARIN AND ENOXAPARIN USED FOR THROMBOSIS AND EMBOLISM PREVENTION IN ORTHOPEDIC PATIENTS IN RUSSIA

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OBJECTIVES: New anti-thrombotic strategy with recent low-molecular-weight heparins (LMWHs) used for the prevention of symptomatic deep venous thrombosis and pulmonary embolism (DVT/PE) has shown clinical and outcome benefits in patients undergoing orthopedic surgery. The purpose of our study is to analyze the costs of LMWHs in total knee replacement and to compare cost-effectiveness and budget impact of bemiparin and enoxaparin addition to current treatment of such patients in Russia. **METHODS:** Cost-effectiveness analysis and budget impact model of patients with total knee replacement (n=1000) is used to compare alternative strategies with bemiparin and enoxaparin for deep venous thrombosis and pulmonary embolism prevention. The model calculates the budget impact of in-hospital LMWHs drug therapy change for these patients. Only direct costs of medicines were considered. The prices of medications were taken from the official price listing. Rates of main outcome were based on literature data (confirmed venous thromboembolism 32.1% for bemiparin and 36.9% for enoxaparin). Net budget impact was expressed as a difference in costs between the strategies where bemiparin is gradually elevated versus traditionally enoxaparin prevention. The budget impact is reported in terms of additional annual total costs. **RESULTS:** According to the model, prevention of DVT/PE with bemiparin in total knee replacement was dominant when compared to enoxaparin. Scenario of the introduction of bemiparin reduces budget costs for LMWHs drugs (in case 50% bemiparin and 50% enoxaparin for 130.9 RUB / patient). In case of 100% bemiparin it can provide actual DVT/PE prevention in 117 additional patients with total knee replacement. **CONCLUSIONS:** Bemiparin demonstrated optimal cost-effectiveness and budget savings compared to enoxaparin in total knee replacement. Further steps such as including bemiparin in clinical recommendations and medical standards of care for the patients is needed for implementing bemiparin in routine hospital practice.

PCV25

HOSPITALIZATION COSTS OF ACUTE CORONARY SYNDROME PATIENTS UNDERGOING PERCUTANEOUS CORONARY INTERVENTION: COMPARISON BETWEEN CLOPIDOGREL AND PRASUGREL PATIENTS IN A UNITED STATES HOSPITAL DATABASE

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OBJECTIVES: Evidence on the use of newer antiplatelet agents and their cost implications remains scarce. Previous research has shown a shorter average hospital length of stay for prasugrel-treated patients compared to clopidogrel-treated patients. We analyzed a large geographically diverse database from the US and compared cost of hospitalization for patients with acute coronary syndrome (ACS) who have undergone percutaneous coronary intervention (PCI) and who received either clopidogrel or prasugrel. **METHODS:** Using a large representative US database maintained by PREMIER, we analyzed patient characteristics and total hospitalization costs during the index (first) hospitalization among ACS-PCI patients treated with clopidogrel or prasugrel between July 2009 and June 2011. Analysis included patients treated with prasugrel who were on-label and clopidogrel-treated patients who would have been eligible for prasugrel treatment per the label. Observed costs were analyzed unadjusted and adjusted for baseline differences using a generalized linear model with a gamma distribution and log link function with propensity score stratification. **RESULTS:** Data were available for 75,315 patients who received clopidogrel and 9,483 patients who received prasugrel during their hospitalization. The observed mean hospitalization costs (SD) for clopidogrel and prasugrel, respectively, were $17,519 ($2,548) and $17,136 ($2,562). Mean costs for clopidogrel and prasugrel recipients, respectively, were $16,937 ($2,162) and $16,664 ($2,137) for STEMI, $17,926 ($2,747) and $17,511 ($2,849) for NSTEMI, and $17,900 ($2,665) and $17,393 ($2,676) for UA (all comparisons, P<0.001). The adjusted results showed prasugrel-treated patients cost as much as $882 less than clopidogrel-treated patients (P<0.001) during the index hospital stay. **CONCLUSIONS:** Prasugrel-treated patients used fewer health care resources compared to clopidogrel-treated patients during the index hospital stay, as measured by hospital costs. Similar results were obtained after adjusting for patient demographics and clinical characteristics. The potential for unmeasured confounder bias is a limitation in this real-world observational research.

PCV26

COST ANALYSIS OF TICAGRELOR VERSUS CLOPIDOGREL IN PATIENTS WITH ACUTE CORONARY SYNDROME IN RUSSIA

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OBJECTIVES: The PLATO trial showed that ticagrelor reduced the risk of myocardial infarction, stroke or death from vascular causes compared to clopidogrel (hazard ratio 0.84, 95% CI 0.77 to 0.92) without a significant increase in major bleeding. The objective of this analysis is to evaluate direct and indirect costs of ticagrelor versus branded clopidogrel in patients with acute coronary syndromes (ACS) from a Russian health care perspective. **METHODS:** An excel based model was developed to estimate the direct and indirect cost per treatment arm for specific CV events (non fatal MIs, CV deaths and other deaths). Rates of non fatal myocardial infarction (MI), CV death and death from other causes was extracted from the PLATO trial (NCT00391872). Difference in direct medical and non-medical costs for ticagrelor vs clopidogrel in patients was estimated using the events above. One-way sensitivity analysis was performed. **RESULTS:** The result of this analysis shows that ticagrelor is associated with reduced health care costs compared with branded clopidogrel for one year treatment in a Russian health care setting. The incremental drug costs of ticagrelor (- 264.46 RUB (€6.48) per patient per year) was offset by higher non drug costs associated with fewer MI's and deaths. Treatment with ticagrelor for one year is associated with total cost savings of 2749.97 RUB (€67.37) per patient, the direct cost savings was of 1260.83 (€30.89) and the indirect was 1489.13 RUB (€36.48) Sensitivity analysis showed that ticagrelor remains to be cost saving compared to branded clopidogrel as long as the ticagrelor price is less than 3520.94 RUB (€86.25) per package while keeping other model parameters unchanged. **CONCLUSIONS:** This analysis demonstrates that one year treatment with ticagrelor is less costly than branded clopidogrel for patients with ACS from a Russian health care perspective.

PCV27

PHARMACOECONOMIC EVALUATION OF NEUROPROTECTIVE THERAPY OF PATIENTS WITH ACUTE ISCHEMIC STROKE IN UKRAINE

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OBJECTIVES: Two approaches recanalization or restoration of adequate perfusion and neuroprotection are identified as a pathogenic treatment of acute ischemic stroke (AIS). Timely mechanical revascularization and thrombolytic therapy prevent the development of neurons necrosis and significantly improve survival and quality of patient life. Unfortunately, in Ukraine these methods are difficult of access for patients due to high cost, late diagnostics and contraindications. The